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Claims

1. Method for parent election in a transparent wireless bridge, said bridge comprising at least two bridge portals, said method comprising the steps of:

- determining for each bridge portal the number of ports to which other wireless devices may be connected;

- electing a bridge portal as parent as a function of the number of such ports,

- connecting other bridge portals to the elected parent portal.

2. Method according to claim 1, wherein the sum of the number of virtual ports as defined in the previous claim and of the number of physical ports of a bridge portal is limited to a predefined number, and wherein the number of virtual ports and physical ports is configurable.

3. Method according to claim 1 or 2, the elected portal is the only portal that may or may not be root on a local bus connected to that elected portal.

4. Method according to one of the preceding claims, further comprising the step of triggering the election of the parent bridge portal following the association of a new bridge portal.

5. Method according to claim 4, further comprising the step of, prior to triggering the election, verifying whether the current parent portal has a free virtual port, and in the affirmative, connecting the new portal to that port without triggering the election.

6. Method according to one of the preceding claims, further comprising the steps of rejecting the connection of a new portal if the connection of the new portal would result in an invalid topology.

7. Method according to one of the preceding claims, further comprising the step of storing, at the level of a portal device, at least one of the following: the failure cause of a connection of the portal to the parent portal, the

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failure of association of the portal a central controller of the wireless bridge, the failure cause of becoming the parent portal.

8. Method according to one of the claims, wherein the portal elected as parent portal in an initial configuration of the network is the portal with the greatest number of virtual ports.

9. Bridge portal device for connection to a wireless bridge comprising a first interface to a wired bus and a second interface to the wireless bridge, characterized in that it comprises microprocessor means for managing ports on its wireless interface for connection to wireless devices according to topology rules defined for the wired bus, said microprocessor means being adapted to participate in a parent portal election process which is function of the availability of free ports on the wireless interfaces of portal devices of the bridge.